The Commonwealth of Massachusetts
Executive Office of Health and Human Services
Department of Public Health
William A. Hinton State Laboratory Institute
305 South Street, Jamaica Plain, MA 02130

DEVAL L. PATRICK
GOVERNOR

TIMOTHY P. MURRAY
LIEUTENANT GOVERNOR

JUDYANN BIGBY, MD
SECRETARY

JOHN AUERBACH
COMMISSIONER

01/13/2011

Sulynn Walton
Assistant District Attorney, Suffolk County

Dear ADA Walton,

Enclosed is the information you requested in regards to Commonwealth vs. [redacted]
Included are copies of the following:

1. Drug Analysis Laboratory Receipt.
2. Curriculum Vitae for Annie Dookhan & Peter Piro.
3. Control Cards with analytical results for samples # [redacted]
4. Analysis sheets with chemist's hand notations and test results.
5. GC/Mass Spectral analytical data for samples # [redacted]

I, Annie Dookhan, was the custodial chemist and performed the preliminary testing and net weight for this sample. Peter Piro was the confirmatory chemist and analyzed the GC/MS data for this sample.

If you have any questions about these materials, please call me at the number below.

Sincerely,

Annie Khan (Dookhan)
Chemist II
Drug Analysis Lab
Jamaica Plain, MA. 02130
(617) 983-6631

BostonPolice DEPARTMENT

DRUG RECEIPT

CC # [redacted]

BOOK # 18

PAGE # 49

DESTRUCTION # _____

District/Unit DCU D14

Name & Rank of Arresting Officer SD [illegible] ID# 839

DEFENDANT'S NAME	ADDRESS	CITY	STATE
[redacted]			MA

DESCRIPTION OF ITEMS SUBMITTED	GROSS QUANTITY	LAB USE ONLY GROSS WEIGHT	LAB USE ONLY ANALYSIS NUMBER
A) PORTION OF AN ORANGE PILL IN A P/B	1	1.16Gg	[redacted]

To be completed by ECU personnel only

Name and Rank of Submitting Officer Lynn Ly ID# 9320

Received by ECU Date 5-12-10

ECU Control # _____

BPD Form 0038-BIS-0907 (prev. 1753)

Curriculum Vitae

Annie Khan (Dookhan)

Education:
University of Massachusetts, Boston, Ma, Master of Science in Chemistry.
University of Massachusetts, Boston, Ma, Bachelor of Science in Biochemistry.

Experience:
2003 – present
Chemist I, II, Massachusetts Department of Public Health, Drug Analysis Laboratory

*Completed six-week training course conducted by senior staff within the Department of Public Health, Drug Analysis Laboratory.
*Appointed Assistant Analyst by Assistant Commissioner of Public Health, January 2004.
*Responsible for the identification of drugs to determine violations of harmful and narcotic drug laws.
*Trained in the use of complex analytical instrumentation, microscopes and balances for the purpose of drug analysis.
*Maintenance and repairs of all analytical instruments.
*Responsible for the Quality Control of all analytical instruments, reagents and controls/standards.
* Responsible for the Quality Control/Quality Assurance program for the drug lab.
*Notary Public.
*Qualified as an expert witness in Massachusetts Courts and U.S. District Court

2001 – 2003
QC Analyst I, II, UMMS-Massachusetts Biologic Laboratory, QC Material Control

*Completed proficiency training conducted by a member of the staff within the MLB Quality Control and Quality Assurance Department.
*Method Development for creating new techniques and enhancing vaccines for the QC Dept. and FDA.
*Writing, revising and reviewing Standard Operating Procedures (SOPs).
*Routine QC testing of products for the FDA.
*Trained in the use of complex analytical instrumentation, and balances for the purpose of QC analysis for product and validation projects.
*Calibration, preventive maintenance, QC and QA of analytical instrumentation.
*Complete testing of chemicals for Vendor Validation Project for the FDA.
*Compendial testing and interpretation of the USP, ACS, FCC, AOAC, Merck Index, PDR, etc.

Additional Training:
Dept. of Justice – Forensics Professionals.
GLP/GMP course with Massachusetts Biologic Laboratory.
QC/QA training according to FDA Codes and Regulations.
GC and GC/MS courses with Agilent Technologies and Restek.
HPLC course with Waters Cooperation.
FTIR course with Spectros.
TOC training with MBL and Sievers.

Association:
American Chemical Society (ACS)
Northeastern Association of Forensics Science (NEAFS)

Curriculum Vitae

Peter Piro

EDUCATION

Boston Unversity
B.A. in Chemistry and Minor in Biology, 1989

HONORS

Magna Cum Laude, 3.6 GPA
Graduated with Distinction in Chemistry
Valedictorian of the Chemistry Department

EXPERIENCE

Department of Public Health/State Laboratory Institute

Laboratory Supervisor I/Chemist III, II, I/ Assistant Analyst December 1991-Present
Supervise the operation and maintenance of the Gas Chromatography/Mass Spectrometry Laboratory. Train staff and coordinate schedules. Analyze controlled substances for State and Federal law enforcement agencies. Develop, oversee, and make improvements to the GC/MS laboratory's quality assurance/quality control (QA/QC) program. Serve as the Technical Supervisor of the Drug Analysis Laboratory. Responsible for planning and implementing Quality Improvement (QI) projects. Make recommendations for protocols and procedures by developing methods so work can be performed in an accurate and efficient manner. Qualified as an expert witness in Massachusetts courts and U.S. District Court.

Massachusetts Health Research Institute

Laboratory Technician September 1990-December 1991
Researched the seasonal and special occurrences of DSP and PSP in shellfish samples harvested from coastal waters and Georges Bank using cELISA and bioassays.

TRAINING AND ORGANIZATIONS

* Completed a six-week training course by senior staff within the Department of Public Health Drug Analysis laboratory.
* Appointed Assistant Analyst by the Assistant Commissioner of Public Health in February 1991.
* Elected as a Regular Member to the Northeastern Association of Forensic Chemists on October 27th 1995 and a member of the Massachusetts Organization of State Engineers and Scientists.
* Completed training in Mass Spectrometry given by the Food and Drug Administration/Forensic Chemistry Center on November 2002.
* Completed training in Mass Spectrometry Troubleshooting and Maintenance, October 25th 2002, at Agilent Technologies.* Notary Public since 1993.

No. [redacted] Date Analyzed: 9-7-10

City: Boston D.C.U. Police Dept.

Officer: P.O. Diana Lopez

Def: [redacted]

Amount: 1.0 Subst: BRKN TAB

No. Cont: 1 Cont: pb

Date Rec'd: 05/12/2010 No. Analyzed:

Gross Wt.: 1.68 Net Weight: 0.06

Tests: GAS
*2 P.P.D

Prelim: Buprenorphine B Findings: Buprenorphine

DRUG POWDER ANALYSIS FORM

SAMPLE # [redacted] AGENCY Boston ANALYST BD

No. of samples tested: _____ Evidence Wt. _____

PHYSICAL DESCRIPTION:

Orange brown tablet

~1 pill

Gross Wt ( ): _____

Gross Wt ( ): _____

Pkg. Wt: _____

Net Wt: 0.0630

PRELIMINARY TESTS

Spot Tests

Cobalt Thiocyanate (-) –

Marquis + (purple)

Froehde's + purple

Mecke's –

Microcrystalline Tests

Gold Chloride _____

TLTA ( ) _____

OTHER TESTS

GC – +

PRELIMINARY TEST RESULTS

RESULTS Buprenorphine

DATE 09-2-10

GC/MS CONFIRMATORY TEST

RESULTS Buprenorphine

MS OPERATOR PJO

DATE 9-7-10

Revised 7/2005

Sequence: C:\Chem32\1\SEQUENCE\DEF_GC.S

Sequence Table (Front Injector):

Method and Injection Info Part:

Line	Location	SampleName DataFile LimsID	Method	Inj	SampleType	InjVolume
1	Vial 1	[redacted]	SCREEN	1	Sample	1
2	Vial 2		SCREEN	1	Sample	1
3	Vial 3		SCREEN	1	Sample	1
4	Vial 4		SCREEN	1	Sample	1
5	Vial 5		SCREEN	1	Sample	1
6	Vial 6		SCREEN	1	Sample	1
7	Vial 7		SCREEN	1	Sample	1
8	Vial 8		SCREEN	1	Sample	1
9	Vial 9		SCREEN	1	Sample	1
10	Vial 10		SCREEN	1	Sample	1
11	Vial 11		SCREEN	1	Sample	1
12	Vial 12		SCREEN	1	Sample	1
13	Vial 13		SCREEN	1	Sample	1
14	Vial 14		SCREEN	1	Sample	1
15	Vial 15		SCREEN	1	Sample	1
16	Vial 16		SCREEN	1	Sample	1
17	Vial 17		SCREEN	1	Sample	1
18	Vial 18		SCREEN	1	Sample	1
19	Vial 19		SCREEN	1	Sample	1
20	Vial 20		SCREEN	1	Sample	1
21	Vial 21		SCREEN	1	Sample	1
22	Vial 22		SCREEN	1	Sample	1
23	Vial 23		SCREEN	1	Sample	1

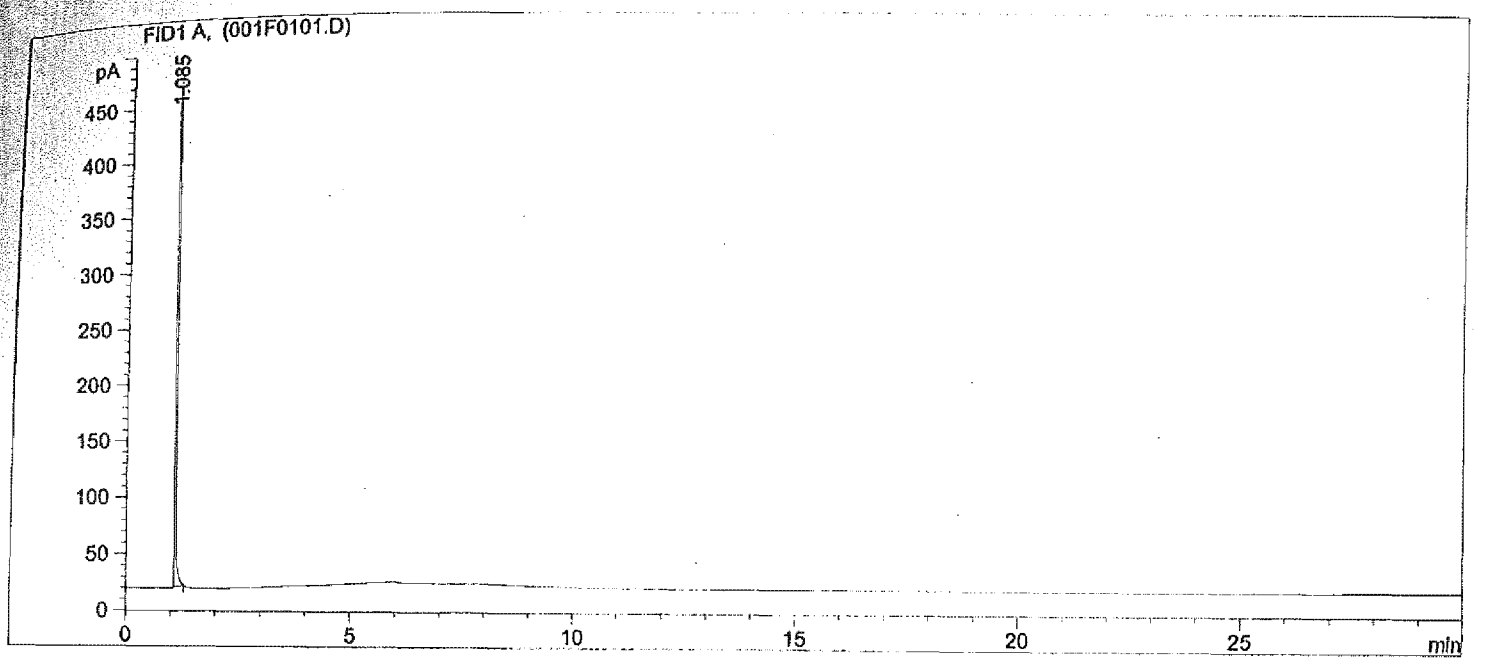
ASD 9-3-10

Sequence Table (Back Injector):

Data Path : C:\CHEM32\1\DATA\001F0101.D
Data File : BLANK
Acq. Operator :
Acq. Instrument : DrugLab GC #2
Injection Date : 9/2/2010 1:24:18 PM

Seq. Line : 1
Location : Vial 1
Inj : 1
Inj Volume : 1 µl

Sequence File : C:\Chem32\1\SEQUENCE\DEF_GC.S
Method : C:\CHEM32\1\METHODS\SCREEN.M
Last changed : 7/27/2010 2:36:10 PM



Area Percent Report

Sorted By : Retention Time
Multiplier: : 1.0000
Dilution: : 1.0000
Sample Amount: : 1.00000 [ng/ul] (not used in calc.)
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak #	RetTime [min]	Sig	Type	Area [pA*s]	Height [pA]	Area %
1	1.085	1	BB S	6.03251e4	6.52364e4	1.000e2
Totals :				6.03251e4	6.52364e4	

*** End of Report ***

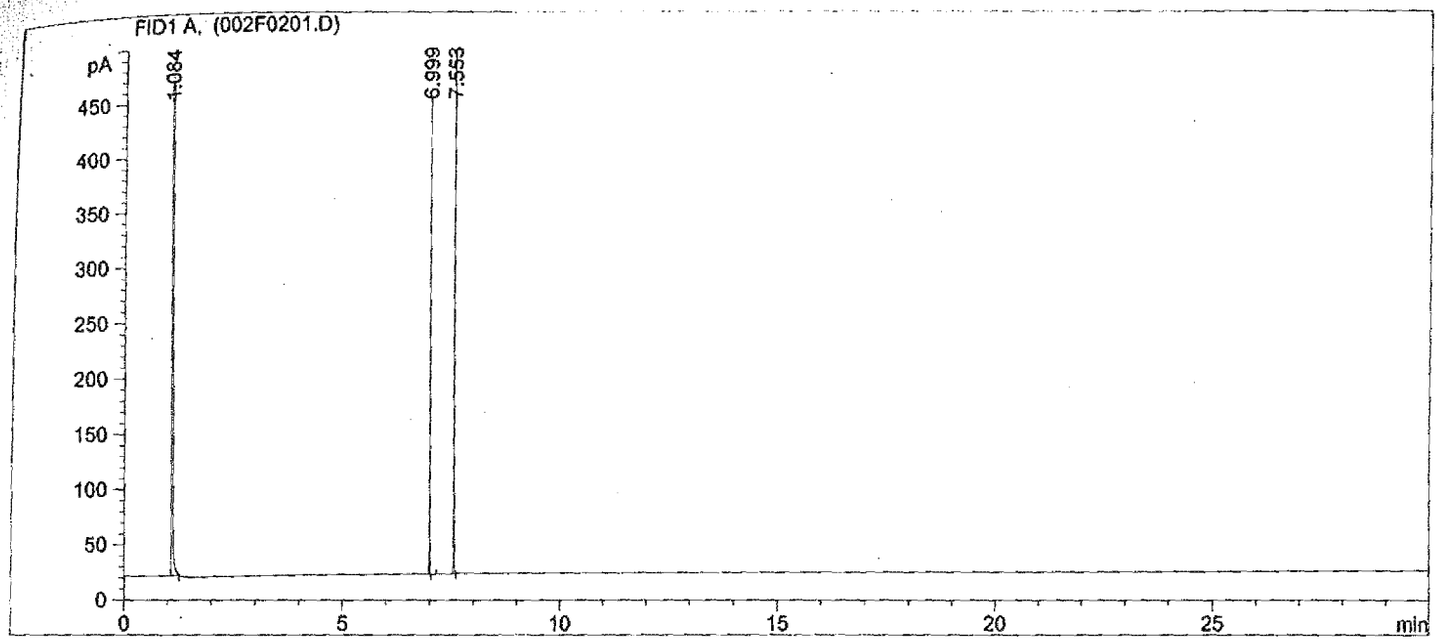
Data File : C:\CHEM32\1\DATA\002F0201.D
Sample Name: COKE/CODEINE STD

==========

Acq. Operator : Seq. Line : 2
Acq. Instrument : DrugLab GC #2 Location : Vial 2
Injection Date : 9/2/2010 1:59:13 PM Inj : 1
Inj Volume : 1 µl

Sequence File : C:\Chem32\1\SEQUENCE\DEF_GC.S
Method : C:\CHEM32\1\METHODS\SCREEN.M
Last changed : 7/27/2010 2:36:10 PM

==========



==========

Area Percent Report

==========

Sorted By : Retention Time
Multiplier: : 1.0000
Dilution: : 1.0000
Sample Amount: : 1.00000 [ng/ul] (not used in calc.)
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak #	RetTime [min]	Sig	Type	Area [pA*s]	Height [pA]	Area %
1	1.084	1	BB S	6.02718e4	6.30283e4	98.78673
2	6.999	1	BB	330.25714	430.01123	0.54130
3	7.553	1	BB	409.98254	481.00000	0.67197
Totals :				6.10121e4	6.39393e4	

==========

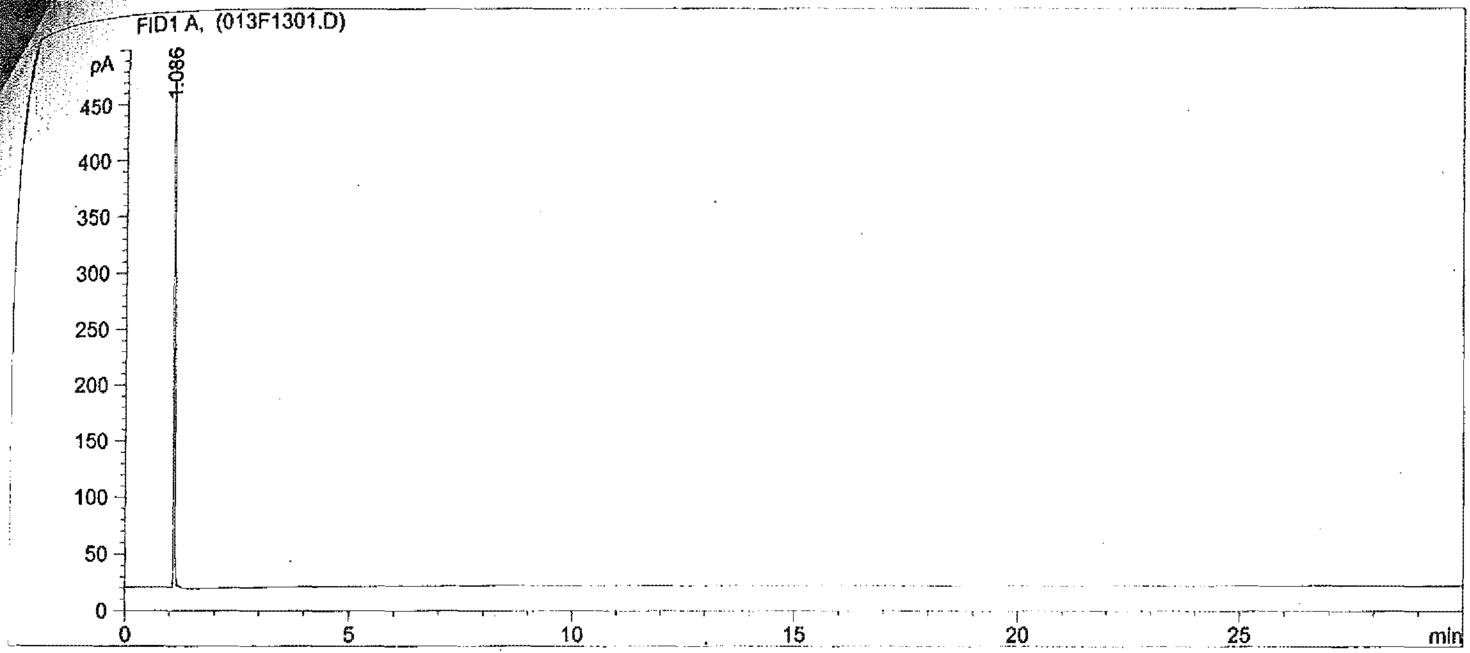
*** End of Report ***

...\1\DATA\013F1301.D

===

...tor	:	Seq. Line :	13
...rument	: DrugLab GC #2	Location :	Vial 13
...n Date	: 9/2/2010 8:24:50 PM	Inj :	1
		Inj Volume :	1 µl
...ce File	: C:\Chem32\1\SEQUENCE\DEF_GC.S		
...od	: C:\CHEM32\1\METHODS\SCREEN.M		
...changed	: 7/27/2010 2:36:10 PM		

===



===

Area Percent Report

===

Sorted By	:	Retention Time		
Multiplier:	:	1.0000		
Dilution:	:	1.0000		
Sample Amount:	:	1.00000	[ng/ul]	(not used in calc.)

Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

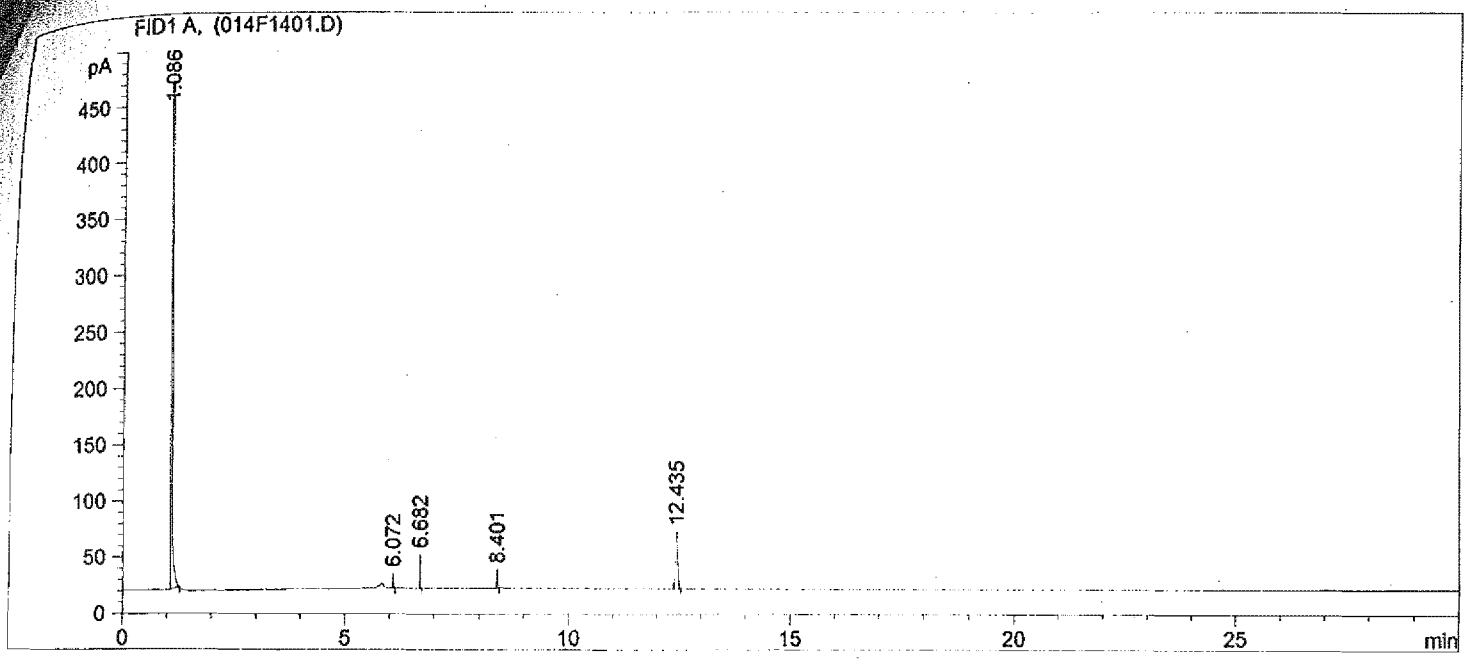
Peak #	RetTime [min]	Sig	Type	Area [pA*s]	Height [pA]	Area %
1	1.086	1	BB S	6.49690e4	6.94284e4	1.000e2
Totals :				6.49690e4	6.94284e4	

===

*** End of Report ***

[redacted]

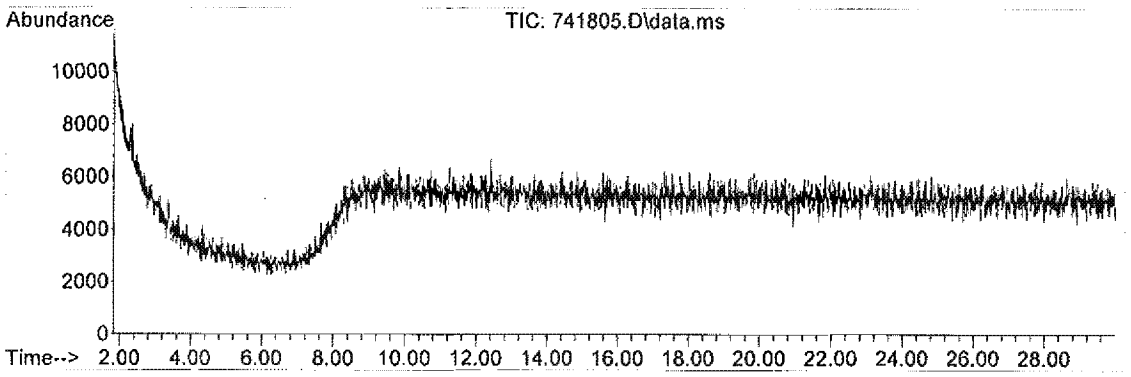
```
==========================================================================
rator    :                                    Seq. Line :  14
strument : DrugLab GC #2                      Location : Vial 14
ion Date : 9/2/2010 8:59:55 PM                    Inj :   1
                                           Inj Volume : 1 µl
nce File : C:\Chem32\1\SEQUENCE\DEF_GC.S
hod      : C:\CHEM32\1\METHODS\SCREEN.M
st changed : 7/27/2010 2:36:10 PM
==========================================================================
```




```
==========================================================================
                        Area Percent Report
==========================================================================

Sorted By             :      Retention Time
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Sample Amount:                :      1.00000  [ng/ul]    (not used in calc.)
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak RetTime Sig Type    Area       Height     Area
  #   [min]             [pA*s]      [pA]       %
---|-------|---|----|----------|----------|--------|
   1   1.086  1  BB S 6.57594e4  7.00290e4  99.64304
   2   6.072  1  BB     16.08466   13.49150  0.02437
   3   6.682  1  BB     26.91865   30.55196  0.04079
   4   8.401  1  BB     20.98379   16.47485  0.03180
   5  12.435  1  BB    171.58737   51.03241  0.26000

Totals :              6.59949e4  7.01405e4

==========================================================================
                        *** End of Report ***
```

P.Piro
1-10-11

Information from Data File:
File Name : C:\msdchem\1\data\SYSTEM6\09_03_10\741805.D
Operator : P.PIRO
Date Acquired : 3 Sep 2010 14:43
Sample Name : BLANK
Submitted by :
Vial Number : 1
AcquisitionMeth: WSCREEN.M
Integrator : RTE

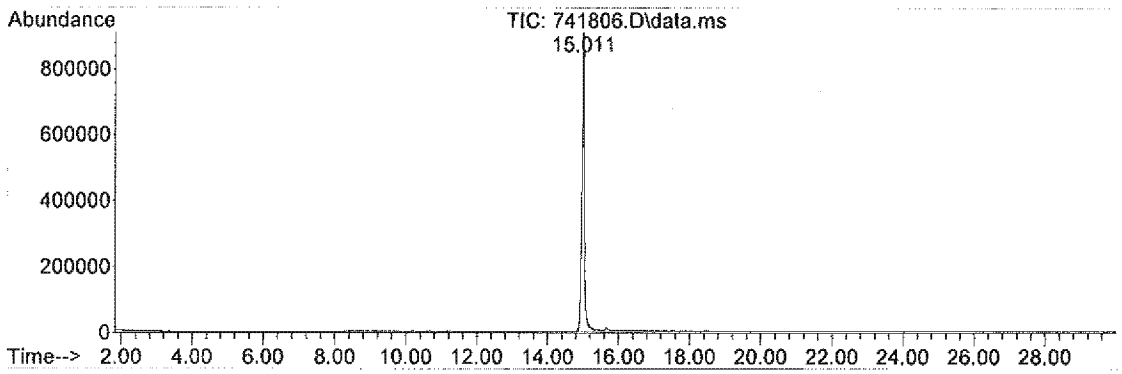


Ret. Time	Area	Area %	Ratio %

NO INTEGRATED PEAKS

Area Percent / Library Search Report

Information from Data File:
File Name : C:\msdchem\1\data\SYSTEM6\09_03_10\741806.D
Operator : P.PIRO
Date Acquired : 3 Sep 2010 15:17
Sample Name : BUPRENORPHINE STD
Submitted by :
Vial Number : 6
AcquisitionMeth: WSCREEN.M
Integrator : RTE

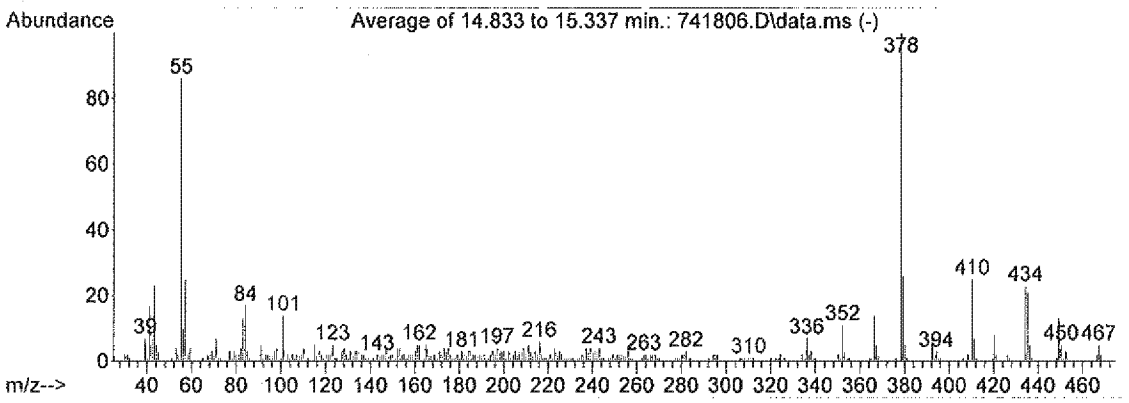


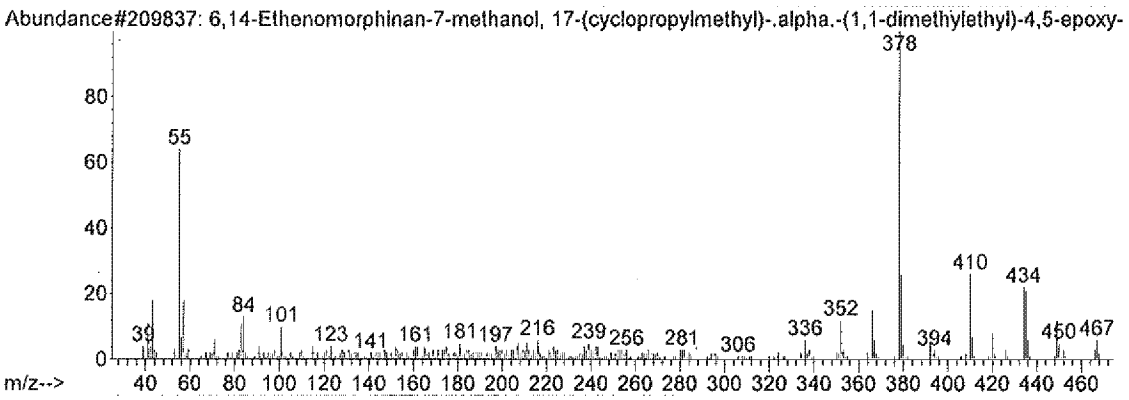
Ret. Time	Area	Area %	Ratio %
15.011	4454545	100.00	100.00

Information from Data File:
File Name : C:\msdchem\1\data\SYSTEM6\09_03_10\741806.D
Operator : P.PIRO
Date Acquired : 3 Sep 2010 15:17
Sample Name : BUPRENORPHINE STD
Submitted by :
Vial Number : 6
AcquisitionMeth: WSCREEN.M
Integrator : RTE

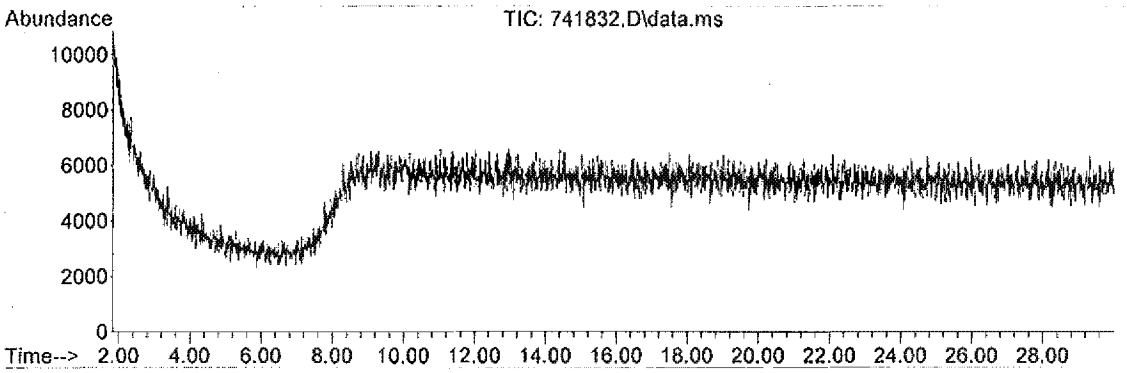
Search Libraries: C:\Database\SLI.L Minimum Quality: 80
C:\Database\NIST08.L Minimum Quality: 80
C:\Database\PMW_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
1	15.01	C:\Database\NIST08.L		
		6,14-Ethenomorphinan-7-methanol, 17	052485-79-7	99
		6,14-Ethenomorphinan-7-methanol, 17	052485-79-7	99
		6,14-Ethenomorphinan-7-methanol, 17	052485-79-7	96





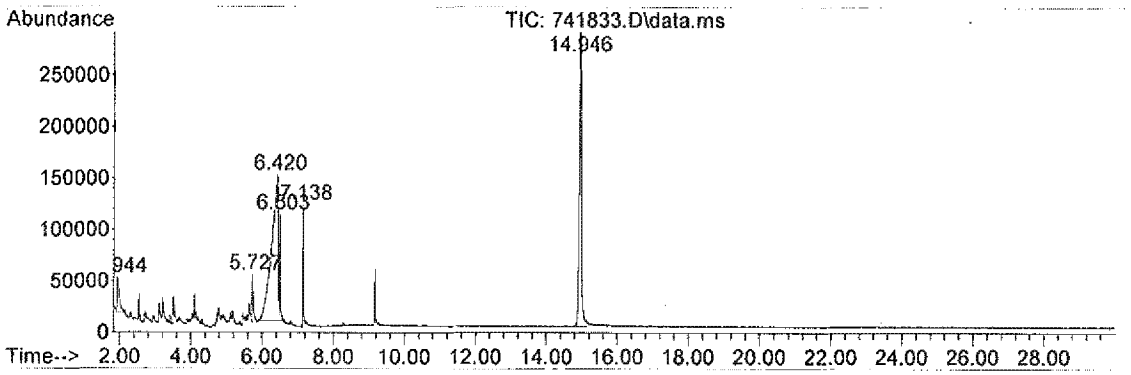
Information from Data File:
File Name : C:\msdchem\1\data\SYSTEM6\09_03_10\741832.D
Operator : P.PIRO
Date Acquired : 4 Sep 2010 6:04
Sample Name : BLANK
Submitted by : ASD
Vial Number : 1
AcquisitionMeth: WSCREEN.M
Integrator : RTE



Ret. Time	Area	Area %	Ratio %

NO INTEGRATED PEAKS

Information from Data File:
File Name : C:\msdchem\1\data\SYSTEM6\09_03_10\741833.D
Operator : P.PIRO
Date Acquired : 4 Sep 2010 6:38
Sample Name : [redacted]
Submitted by : ASD
Vial Number : 33
AcquisitionMeth: WSCREEN.M
Integrator : RTE

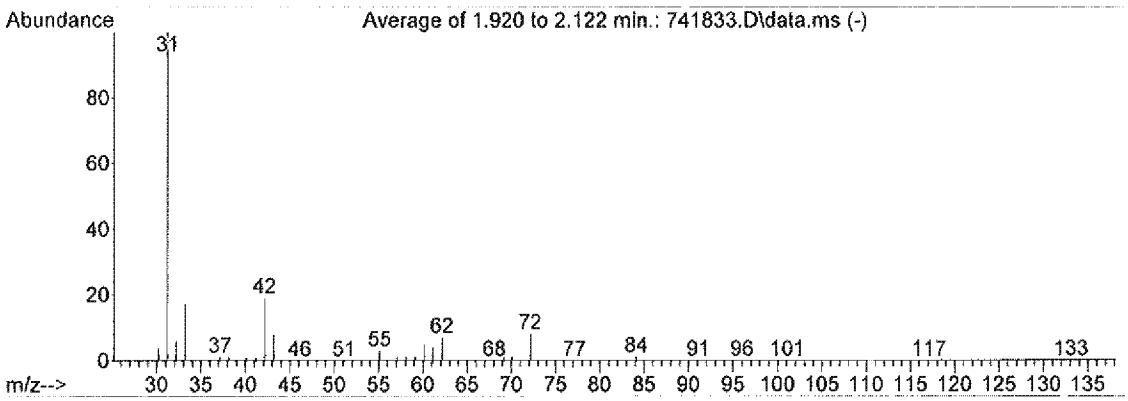


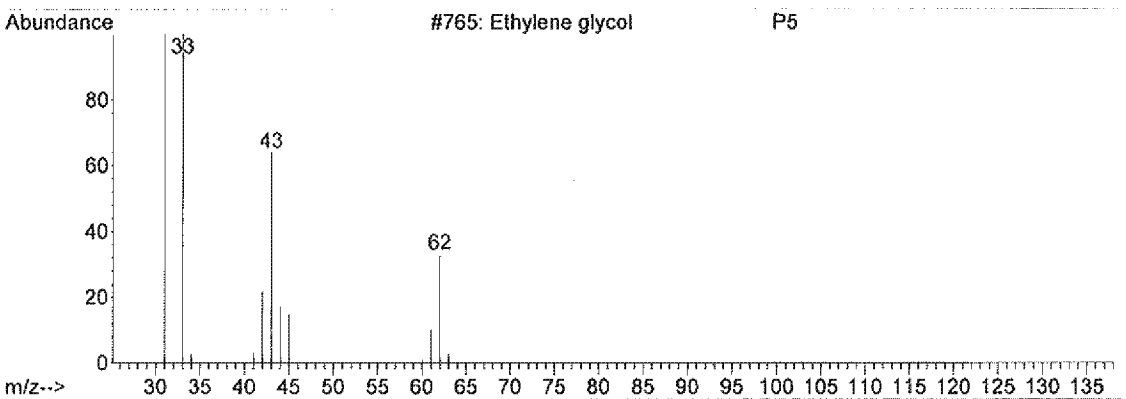
Ret. Time	Area	Area %	Ratio %
1.944	153590	4.35	8.67
5.727	119049	3.37	6.72
6.420	1771473	50.20	100.00
6.503	116256	3.29	6.56
7.138	144713	4.10	8.17
14.946	1223403	34.67	69.06

Information from Data File:
File Name : C:\msdchem\1\data\SYSTEM6\09_03_10\741833.D
Operator : P.PIRO
Date Acquired : 4 Sep 2010 6:38
Sample Name : [redacted]
Submitted by : ASD
Vial Number : 33
AcquisitionMeth: WSCREEN.M
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80
C:\Database\NIST08.L Minimum Quality: 80
C:\Database\PMW_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
1	1.94	C:\Database\PMW_TOX2.L		
		Ethylene glycol	000107-21-1	5
		Propranolol -H2O AC	000000-00-0	1
		Propranolol-M -H2O isomer-2 2AC	000000-00-0	1

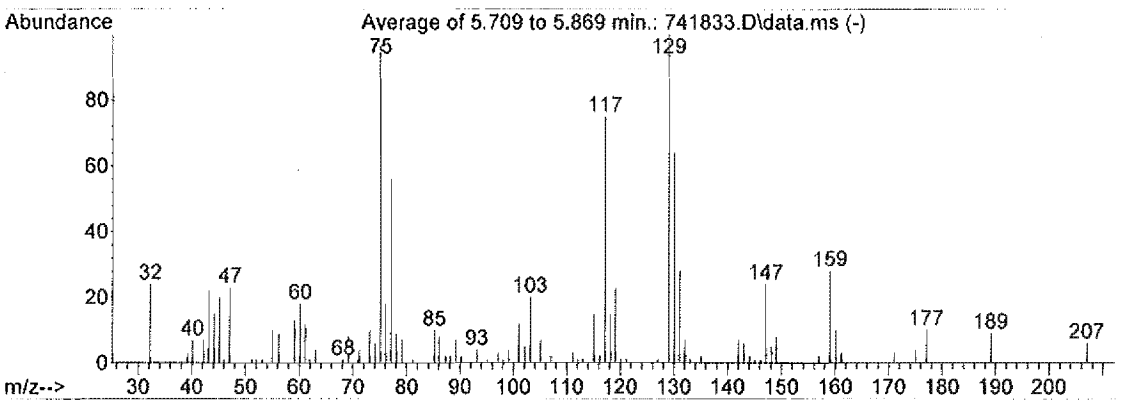


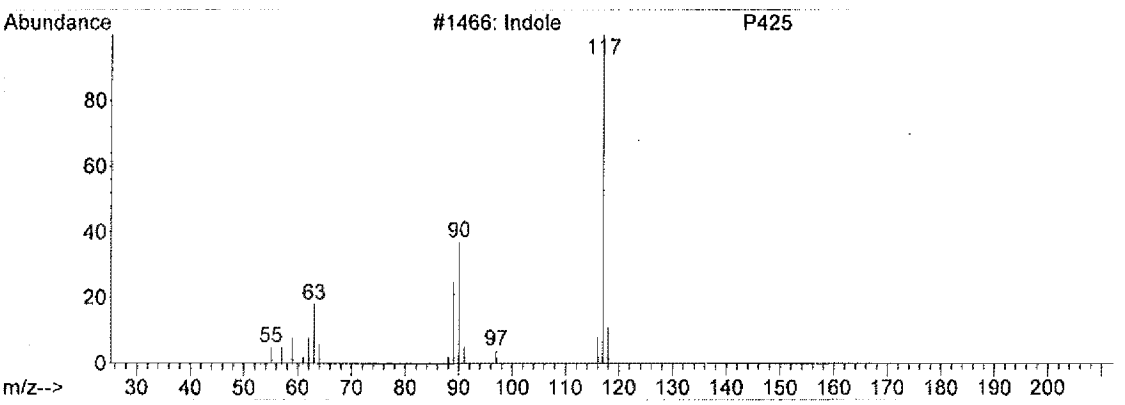


Information from Data File:
File Name : C:\msdchem\1\data\SYSTEM6\09_03_10\741833.D
Operator : P.PIRO
Date Acquired : 4 Sep 2010 6:38
Sample Name : [redacted]
Submitted by : ASD
Vial Number : 33
AcquisitionMeth: WSCREEN.M
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80
C:\Database\NIST08.L Minimum Quality: 80
C:\Database\PMW_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
2	5.73	C:\Database\PMW_TOX2.L		
		Indole	000120-72-9	7
		Tolazamide artifact-1 2ME	000000-00-0	4
		Vinyltoluene	000611-15-4	2

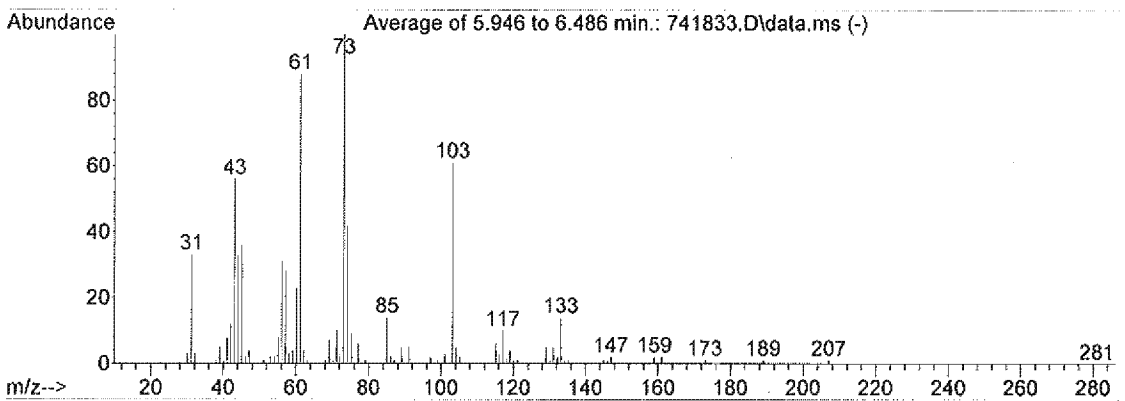


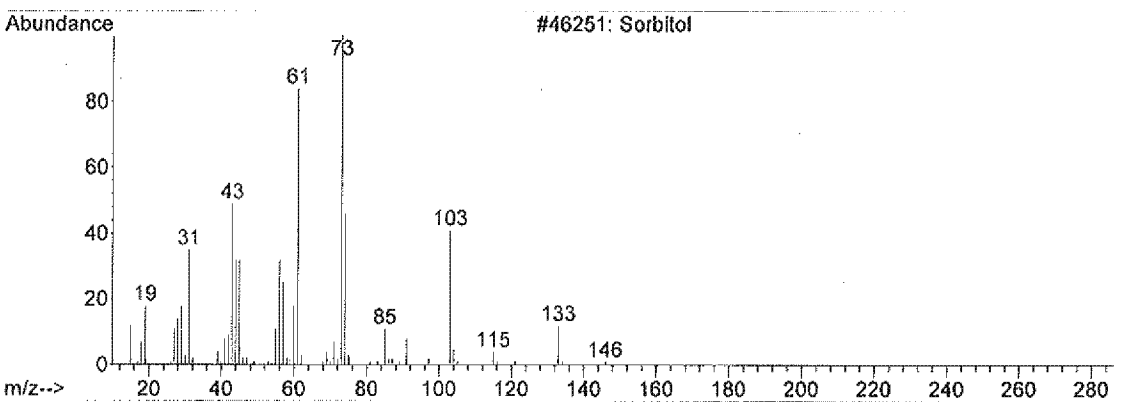


Information from Data File:
File Name : C:\msdchem\1\data\SYSTEM6\09_03_10\741833.D
Operator : P.PIRO
Date Acquired : 4 Sep 2010 6:38
Sample Name : [redacted]
Submitted by : ASD
Vial Number : 33
AcquisitionMeth: WSCREEN.M
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80
C:\Database\NIST08.L Minimum Quality: 80
C:\Database\PMW_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
3	6.42	C:\Database\NIST08.L		
		Sorbitol	000050-70-4	91
		D-Mannitol	000069-65-8	86
		D-Mannitol	000069-65-8	86

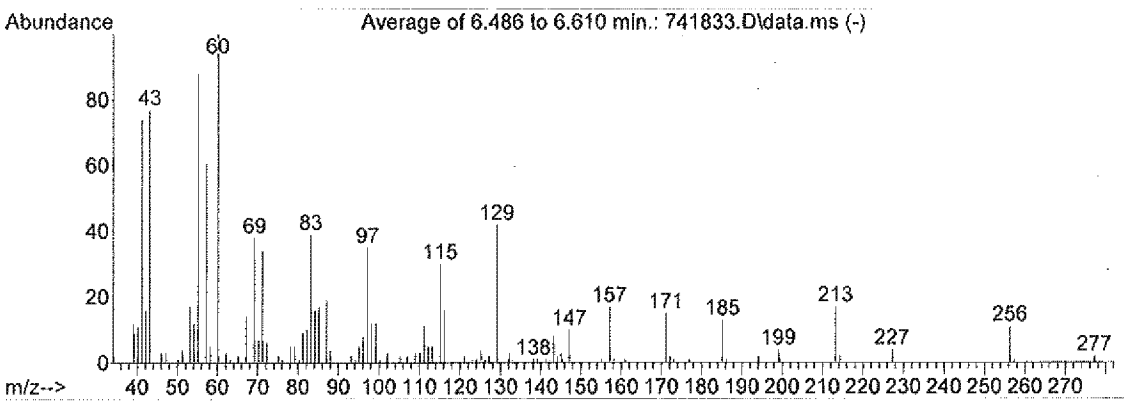


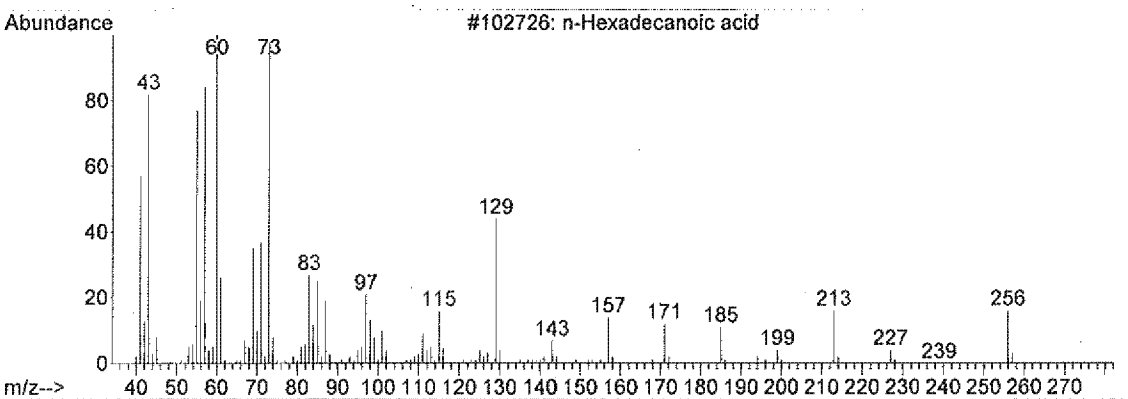


Information from Data File:
File Name : C:\msdchem\1\data\SYSTEM6\09_03_10\741833.D
Operator : P.PIRO
Date Acquired : 4 Sep 2010 6:38
Sample Name : [redacted]
Submitted by : ASD
Vial Number : 33
AcquisitionMeth: WSCREEN.M
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80
C:\Database\NIST08.L Minimum Quality: 80
C:\Database\PMW_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
4	6.50	C:\Database\NIST08.L		
		n-Hexadecanoic acid	000057-10-3	94
		5-Acetoxypentadecane	1000245-62-3	27
		Hydrazinecarbothioamide, 2-(2-thien	005351-91-7	22

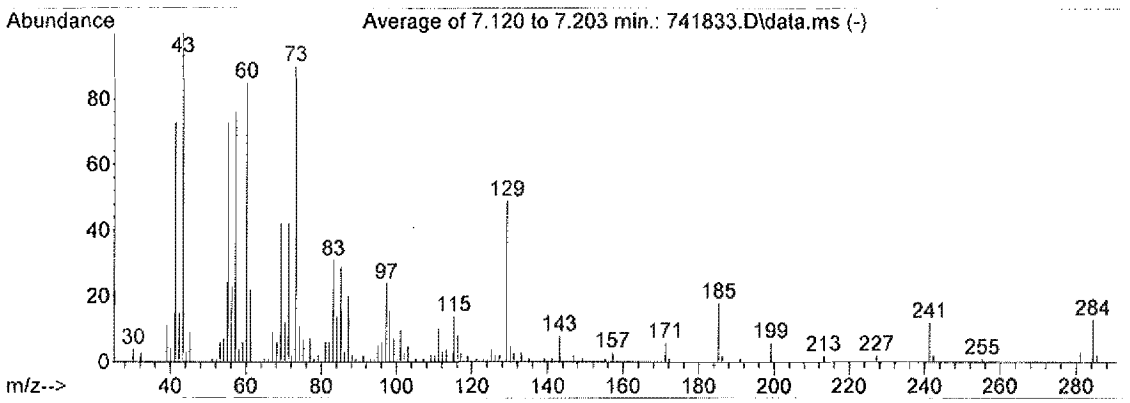


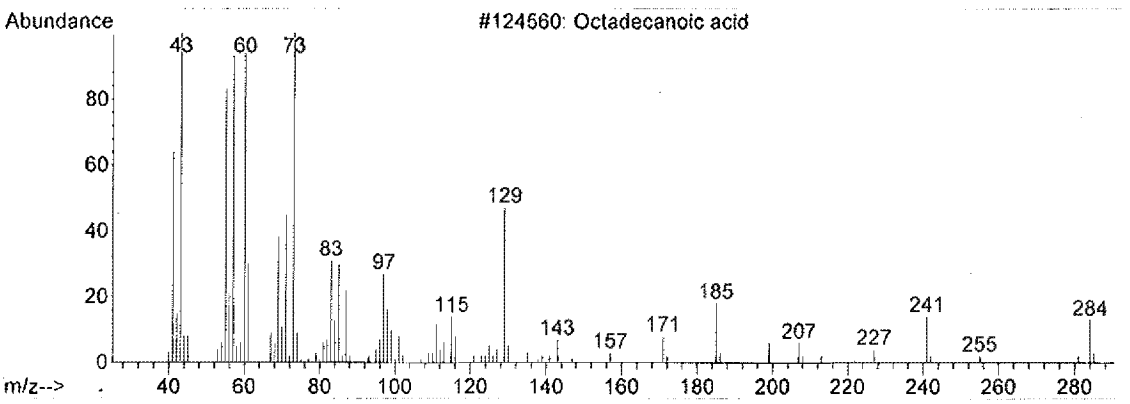


Information from Data File:
File Name : C:\msdchem\1\data\SYSTEM6\09_03_10\741833.D
Operator : P.PIRO
Date Acquired : 4 Sep 2010 6:38
Sample Name : [redacted]
Submitted by : ASD
Vial Number : 33
AcquisitionMeth: WSCREEN.M
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80
C:\Database\NIST08.L Minimum Quality: 80
C:\Database\PMW_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
5	7.14	C:\Database\NIST08.L		
		Octadecanoic acid	000057-11-4	99
		Octadecanoic acid	000057-11-4	99
		Octadecanoic acid	000057-11-4	96

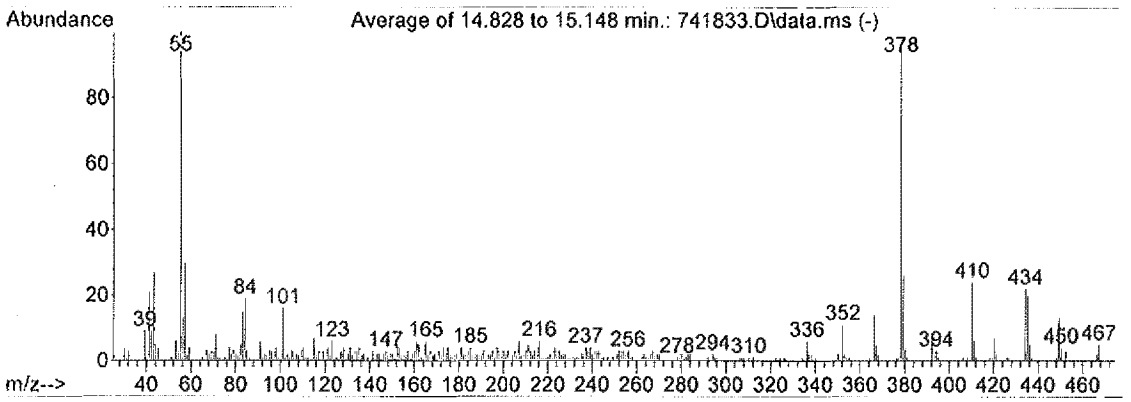


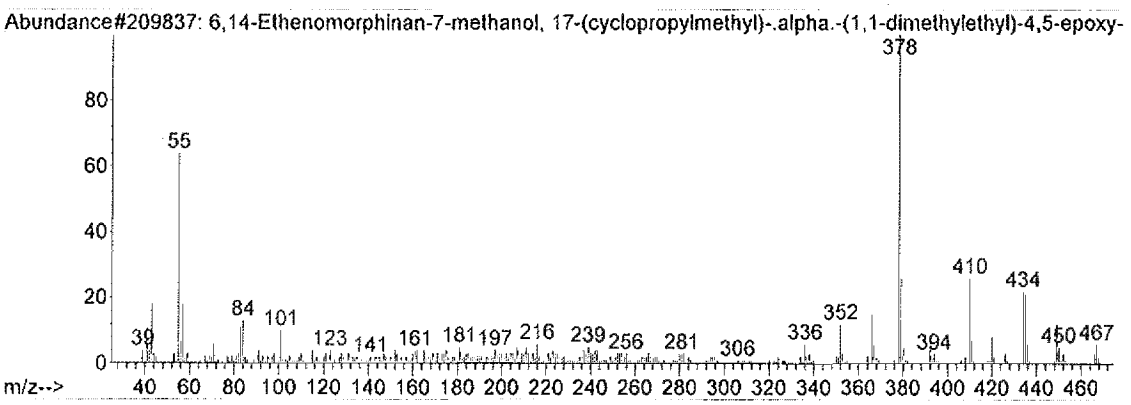


Information from Data File:
File Name : C:\msdchem\1\data\SYSTEM6\09_03_10\741833.D
Operator : P.PIRO
Date Acquired : 4 Sep 2010 6:38
Sample Name : [redacted]
Submitted by : ASD
Vial Number : 33
AcquisitionMeth: WSCREEN.M
Integrator : RTE

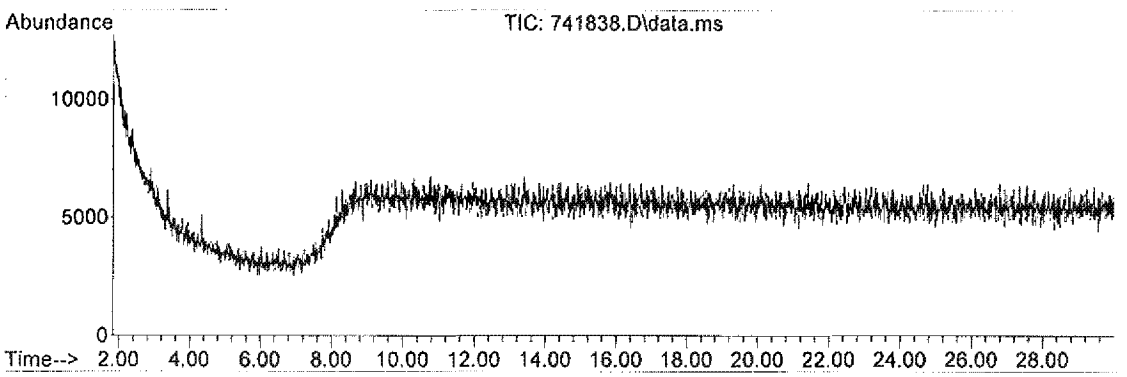
Search Libraries: C:\Database\SLI.L Minimum Quality: 80
C:\Database\NIST08.L Minimum Quality: 80
C:\Database\PMW_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
6	14.95	C:\Database\NIST08.L		
		6,14-Ethenomorphinan-7-methanol, 17	052485-79-7	99
		6,14-Ethenomorphinan-7-methanol, 17	052485-79-7	99
		6,14-Ethenomorphinan-7-methanol, 17	052485-79-7	97





Information from Data File:
File Name : C:\msdchem\1\data\SYSTEM6\09_03_10\741838.D
Operator : P.PIRO
Date Acquired : 4 Sep 2010 9:29
Sample Name : BLANK
Submitted by :
Vial Number : 1
AcquisitionMeth: WSCREEN.M
Integrator : RTE

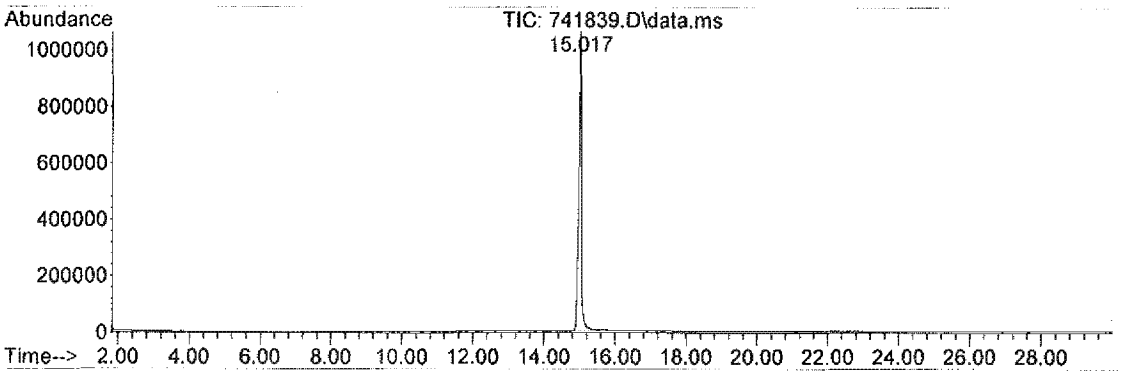


Ret. Time	Area	Area %	Ratio %

NO INTEGRATED PEAKS

Area Percent / Library Search Report

Information from Data File:
File Name : C:\msdchem\1\data\SYSTEM6\09_03_10\741839.D
Operator : P.PIRO
Date Acquired : 4 Sep 2010 10:03
Sample Name : BUPRENORPHINE STD
Submitted by :
Vial Number : 6
AcquisitionMeth: WSCREEN.M
Integrator : RTE



Ret. Time	Area	Area %	Ratio %
15.017	5485251	100.00	100.00

Information from Data File:
File Name : C:\msdchem\1\data\SYSTEM6\09_03_10\741839.D
Operator : P.PIRO
Date Acquired : 4 Sep 2010 10:03
Sample Name : BUPRENORPHINE STD
Submitted by :
Vial Number : 6
AcquisitionMeth: WSCREEN.M
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80
C:\Database\NIST08.L Minimum Quality: 80
C:\Database\PMW_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
1	15.02	C:\Database\NIST08.L		
		6,14-Ethenomorphinan-7-methanol, 17	052485-79-7	99
		6,14-Ethenomorphinan-7-methanol, 17	052485-79-7	99
		6,14-Ethenomorphinan-7-methanol, 17	052485-79-7	96